```
MMM         MMM     CCCCCCCCCCCC  LLL             DDDDDDDDDDDD     RRRRRRRRRRRR
MMM         MMM     CCCCCCCCCCCC  LLL             DDDDDDDDDDDD     RRRRRRRRRRRR
MMM         MMM     CCCCCCCCCCCC  LLL             DDDDDDDDDDDD     RRRRRRRRRRRR
MMMMMMM   MMMMMMM  CCC            LLL             DDD         DDD  RRR         RRR
MMMMMMM   MMMMMMM  CCC            LLL             DDD         DDD  RRR         RRR
MMMMMMM   MMMMMMM  CCC            LLL             DDD         DDD  RRR         RRR
MMM   MMM   MMM    CCC            LLL             DDD         DDD  RRR         RRR
MMM   MMM   MMM    CCC            LLL             DDD         DDD  RRR         RRR
MMM   MMM   MMM    CCC            LLL             DDD         DDD  RRR         RRR
MMM         MMM    CCC            LLL             DDD         DDD  RRRRRRRRRRRR
MMM         MMM    CCC            LLL             DDD         DDD  RRRRRRRRRRRR
MMM         MMM    CCC            LLL             DDD         DDD  RRRRRRRRRRRR
MMM         MMM    CCC            LLL             DDD         DDD  RRR   RRR
MMM         MMM    CCC            LLL             DDD         DDD  RRR   RRR
MMM         MMM    CCC            LLL             DDD         DDD  RRR   RRR
MMM         MMM    CCC            LLL             DDD         DDD  RRR      RRR
MMM         MMM    CCC            LLL             DDD         DDD  RRR      RRR
MMM         MMM    CCC            LLL             DDD         DDD  RRR      RRR
MMM         MMM     CCCCCCCCCCCC  LLLLLLLLLLLLLLL  DDDDDDDDDDDD     RRR         RRR
MMM         MMM     CCCCCCCCCCCC  LLLLLLLLLLLLLLL  DDDDDDDDDDDD     RRR         RRR
MMM         MMM     CCCCCCCCCCCC  LLLLLLLLLLLLLLL  DDDDDDDDDDDD     RRR         RRR
```

```
LL          AAAAAA    MM      MM  RRRRRRRR    MM      MM    CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE
LL          AAAAAA    MM      MM  RRRRRRRR    MM      MM    CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE
LL        AA      AA  MMMM  MMMM  RR      RR  MMMM  MMMM  CC          OO      OO  DD      DD  EE
LL        AA      AA  MMMM  MMMM  RR      RR  MMMM  MMMM  CC          OO      OO  DD      DD  EE
LL        AA      AA  MM  MM  MM  RR      RR  MM  MM  MM  CC          OO      OO  DD      DD  EE
LL        AA      AA  MM  MM  MM  RR      RR  MM  MM  MM  CC          OO      OO  DD      DD  EE
LL        AA      AA  MM      MM  RRRRRRRR    MM      MM  CC          OO      OO  DD      DD  EEEEEEEE
LL        AA      AA  MM      MM  RRRRRRRR    MM      MM  CC          OO      OO  DD      DD  EEEEEEEE
LL        AAAAAAAAAA  MM      MM  RR  RR      MM      MM  CC          OO      OO  DD      DD  EE
LL        AAAAAAAAAA  MM      MM  RR  RR      MM      MM  CC          OO      OO  DD      DD  EE
LL        AA      AA  MM      MM  RR    RR    MM      MM  CC          OO      OO  DD      DD  EE
LL        AA      AA  MM      MM  RR    RR    MM      MM  CC          OO      OO  DD      DD  EE
LLLLLLLLLL  AA      AA  MM      MM  RR      RR  MM      MM    CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE
LLLLLLLLLL  AA      AA  MM      MM  RR      RR  MM      MM    CCCCCCCC    OOOOOO    DDDDDDDD    EEEEEEEEEE

LL          IIIIII      SSSSSSSS
LL          IIIIII      SSSSSSSS
LL            II      SS
LL            II      SS
LL            II      SS
LL            II      SS
LL            II        SSSSSS
LL            II        SSSSSS
LL            II              SS
LL            II              SS
LL            II              SS
LL            II              SS
LLLLLLLLLL  IIIIII    SSSSSSSS
LLLLLLLLLL  IIIIII    SSSSSSSS
```

```
0000          .TITLE  LAMRMCODE - LPA-11 MULTIREQUEST MODE MICROCODE
0000          .IDENT  'V04-000'
0000    ;
0000    ;*****************************************************************************
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0000    ;*                                                                           *
0000    ;*                                                                           *
0000    ;*****************************************************************************
0000    ;
0000
0000    ;++
0000    ; FACILITY:     LPA-11 UTILITY ROUTINES
0000    ;
0000    ; ABSTRACT:
0000    ;       THIS MODULE CONTAINS THE LPA-11 MULTIREQUEST MODE MICROCODE
0000    ;
0000    ; ENVIRONMENT:  USER MODE (LINKED WITH LPA-11 LOADER PROCESS)
0000    ;
0000    ; AUTHOR:       CHUCK SAMUELSON.        CREATION DATE:  NOVEMBER, 1977
0000    ; MODIFIED BY:
0000    ;
0000    ;       AARON BOXER,    JULY - OCTOBER, 1978
0000    ;       STEVE BECKHARDT,        OCTOBER,1978
0000    ;               ADDED MODULE PREFACE AND MICROCODE TYPE TO LAST WORD
0000    ;               OF MICROCODE
0000    ;
0000    ;       V02-002         AARON BOXER AND DOUG BELLI      MAY 1979 - JAN 1980
0000    ;                       FIXED VARIOUS MICROCODE BUGS
0000    ;--
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                                  00000000    48          .PSECT  _LPA$CODE,NOWRT,WORD
                                       0000    49
                                       0000    50
                                       0000    51  LPA$$MRMCODE::
6693 01FF 6696 6694 6A92 7290 0100     0000    52          .WORD     256, 29328, 27282, 26260, 26262,   511, 26259, 26264
                                       6698    000E
0180 820B 6670 1DFF 6690 0107 6699     0010    53          .WORD   26265,   263, 26256,  7679, 26224,-32245,   384, 26258
                                       6692    001E
6679 8210 6678 8119 8614 6390 21A0     0020    54          .WORD    8608, 25488,-31212,-32487, 26232,-32240, 26233,-32240
                                       8210    002E
9BB0 60F0 26A0 012A 8987 99CF 8986     0030    55          .WORD  -30330,-26161,-30329,   298,  9888, 24816,-25680,-30328
                                       8988    003E
479F 6881 8329 5691 28F0 6694 7185     0040    56          .WORD   29061, 26260, 10480, 22161,-31959, 26753, 18335,-29696
                                       8C00    004E
6758 26A8 6695 0107 8AFB 6675 973A     0050    57          .WORD  -26822, 26229,-29957,   263, 26261,  9896, 26456,-28790
                                       8F8A    005E
8975 8337 6183 8E89 6158 898B 8632     0060    58          .WORD  -31182,-30325, 24920,-29047, 24963,-31945,-30347,-24320
                                       A100    006E
8768 6152 8FFB A190 8FFB A729 8473     0070    59          .WORD  -31629,-22743,-28677,-24176,-28677, 24914,-30872,-23029
                                       A60B    007E
0136 89FB 875B 618B 8463 8746 6182     0080    60          .WORD   24962,-30906,-31645, 24971,-30885,-30213,   310, 25748
                                       6494    008E
A60C 844C A180 6298 010F 6495 01F1     0090    61          .WORD     497, 25749,   271, 25240,-24192,-31668,-23028,   384
                                       0180    009E
6288 6298 010F 6690 010C 6290 61CC     00A0    62          .WORD   25036, 25232,   268, 26256,   271, 25240, 25224,   383
                                       017F    00AE
01C0 8165 875E 615B 8C82 A190 66B2     00B0    63          .WORD   26290,-24176,-29566, 24923,-30882,-32411,   448, 25241
                                       6299    00BE
66B2 017E 8760 615B 89FB 66C2 0101     00C0    64          .WORD     257, 26306,-30213, 24923,-30880,   382, 26290,-30213
                                       89FB    00CE
0180 813F 876E 6159 8170 876B 6189     00D0    65          .WORD   24969,-30869,-32400, 24921,-30866,-32449,   384, 25241
                                       6299    00DE
A600 010C A455 A444 8139 66B2 01BF     00E0    66          .WORD     447, 26290,-32455,-23484,-23467,   268,-23040, 26288
                                       66B0    00EE
A609 017E 847B A180 6298 61C0 0103     00F0    67          .WORD     259, 25024, 25240,-24192,-31621,   382,-23031, 25017
                                       61B9    00FE
8788 6189 6288 6298 61C0 0103 6290     0100    68          .WORD   25232,   259, 25024, 25240, 25224, 24969,-30840,-30363
                                       8965    010E
0107 2600 2EF4 8C67 A190 8C6B 2140     0110    69          .WORD    8512,-29589,-24176,-29593, 12020,  9728,   263, 26288
                                       66B0    011E
8968 99A3 81D2 81C8 89DD E100 0192     0120    70          .WORD     402, -7936,-30243,-32312,-32302,-26205,-30360,-30360
                                       8968    012E
4698 4494 7001 012B 669F 8968 8968     0130    71          .WORD  -30360,-30360, 26271,   299, 28673, 17556, 18072, 26168
                                       6638    013E
A180 8F3E 21A0 4298 5C95 82BC 7D38     0140    72          .WORD   32056,-32068, 23701, 17048,  8608,-28866,-24192,-31578
                                       84A6    014E
84AD 21A0 6498 61C4 0120 84C6 A190     0150    73          .WORD  -24176,-31546,   288, 25028, 25752,  8608,-31571,  9224
                                       2408    015E
5E99 5E98 7001 0128 F18F 87B3 2110     0160    74          .WORD    8464,-30797, -3697,   296, 28673, 24216, 24217, 24218
                                       5E9A    016E
7D38 4698 4495 F18F 653A 7D89 7D88     0170    75          .WORD   32136, 32137, 25914, -3697, 17557, 18072, 32056,-32063
                                       82C1    017E
24B8 81A4 6508 0104 4698 4298 81A3     0180    76          .WORD  -32349, 17048, 18072,   260, 25864,-32348,  9400,-30397
                                       8943    018E
1008 86CF 2100 100A 896E 86CB 6182     0190    77          .WORD   24962,-31029,-30354,  4106,  8448,-31025,  4104, 16784
                                       4190    019E
6758 2608 896E 86D5 6182 81E3 8C69     01A0    78          .WORD  -29591,-32285, 24962,-31019,-30354,  9736, 26456,-31015
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                                        86D9  01AE
85F7 6390 2110 8F68 6158 8F68           896F  01B0    79          .WORD   -30353,-28824, 24920,-28824,  8464. 25488,-31241,  8464
                                        2110  01BE
6691 01C3 6694 1107 8D68 81E3           84E2  01C0    80          .WORD   -31518,-32285,-29336,  4359, 26260,   451, 26257,-32278
                                        81EA  01CE
01C0 8B72 7674 83F4 4190 6691           01C2  01D0    81          .WORD      450, 26257, 16784,-31756, 30324,-29838,   448, 26113
                                        6601  01DE
89E8 6881 7581 81EA 83E8 60F4           0103  01E0    82          .WORD      259, 24820,-31768,-32278, 30081, 26753,-30232,  8448
                                        2100  01EE
0000 0000 8968 84E2 2110 8968           86FA  01F0    83          .WORD   -30982,-30360,  8464,-31518,-30360,     0,     0,     0
                                        0000  01FE
6176 8F1A 4796 8729 B990 8729           A120  0200    84          .WORD   -24288,-30935,-18032,-30935, 18326,-28902, 24950,-29917
                                        8B23  020E
657C 469C 7001 012E 8B12 60F6           0101  0210    85          .WORD      257, 24822,-29934,   302, 28673, 18076, 25980,-30190
                                        8A12  021E
25F0 7DBC 017E 469C 7081 8945           26F6  0220    86          .WORD     9974,-30395, 28801, 18076,   382, 32188,  9712,   281
                                        0119  022E
675F 6881 05FF 0800 7084 89FA           89A6  0230    87          .WORD   -30298,-30214, 28804,  2048,  1535, 26753, 26463,-28893
                                        8F23  023E
8EF6 615F 66C2 0180 8917 8F28           615F  0240    88          .WORD    24927,-28888,-30441,   384, 26306, 24927,-28938,-30446
                                        8912  024E
8917 8B2F 60F6 01AC 8B2F 60F6           01AB  0250    89          .WORD      427, 24822,-29905,   428, 24822,-29905,-30441,   424
                                        01A8  025E
6606 01D4 6636 6636 6636 8917           6696  0260    90          .WORD    26262,-30441, 26166, 26166, 26166,   468, 26118, 28801
                                        7081  026E
6636 6636 6636 89F6 6586 1D41           6881  0270    91          .WORD    26753,  7489, 25990,-30218, 26166, 26166, 26166, 26166
                                        6636  027E
66C6 01A0 6636 6636 6636 6636           6636  0280    92          .WORD    26166, 26166, 26166, 26166, 26166,   416, 26310, 28801
                                        7081  028E
6586 8FF6 4190 894E 8C4C 8EF6           5990  0290    93          .WORD    22928,-28938,-29620,-30386, 16784,-28682, 25990,  8608
                                        21A0  029E
0110 4698 7081 6499 61C4 0110           8E4F  02A0    94          .WORD   -29105,   272, 25028, 25753, 28801, 18072,   272, 26056
                                        65C8  02AE
8EFA 8C63 4799 7081 6636 6636           89F6  02B0    95          .WORD   -30218, 26166, 26166, 28801, 18329,-29597,-28934,   257
                                        0101  02BE
8972 6636 8944 26F6 89FA 6586           7DC9  02C0    96          .WORD    32201, 25990,-30214,  9974,-30396, 26166,-30350, 26166
                                        6636  02CE
6636 6636 6636 6636 6636 6636           6636  02D0    97          .WORD    26166, 26166, 26166, 26166, 26166, 26166, 26166, 26166
                                        6636  02DE
A120 6696 6693 61C6 01C0 6656           6636  02E0    98          .WORD    26166, 26198,   448, 25030, 26259, 26262,-24288,-28682
                                        8FF6  02EE
8CF6 6186 89A6 017D 26B3 8FF6           A190  02F0    99          .WORD   -24176,-28682,  9907,   381,-30298, 24966,-29450,   384
                                        0180  02FE
6636 6636 6636 6636 6636 89F6           66C2  0300   100          .WORD    26306,-30218, 26166, 26166, 26166, 26166, 26166, 26166
                                        6636  030E
66C6 01E0 6287 6296 6636 6636           6636  0310   101          .WORD    26166, 26166, 26166, 25238, 25223,   480, 26310,   256
                                        0100  031E
8B91 618E 8F9B A729 8F91 A190           669E  0320   102          .WORD    26270,-24176,-28783,-22743,-28773, 24974,-29807,   409
                                        0199  032E
6159 8993 8F9E 6152 8991 667E           89A6  0330   103          .WORD   -30298, 26238,-30319, 24914,-28770,-30317, 24921,-28767
                                        8FA1  033E
669F 8991 66B2 01BF 6299 0180           8993  0340   104          .WORD   -30317,   384, 25241,   447, 26290,-30319, 26271, 24966
                                        6186  034E
6298 010F 6495 01F1 6494 0136           6293  0350   105          .WORD    25235,   310, 25748,   497, 25749,   271, 25240,-24192
                                        A180  035E
61CA 61C4 0180 66BA 0140 A62A           8CAF  0360   106          .WORD   -29521,-22998,   320, 26298,   384, 25028, 25034, 25234
                                        6292  036E
```

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8FC2 615A 6288 6298 010F 6690 010C  0370   107        .WORD     268, 26256,   271, 25240, 25224, 24922,-28734,   320
                              0140  037E
E98F 66B2 01BF 6299 0180 E98F 66C2  0380   108        .WORD   26306, -5745,   384, 25241,   447, 26290, -5745, 26270
                              669E  038E
8AD4 7D38 6638 4698 4494 7001 0104  0390   109        .WORD     260, 28673, 17556, 18072, 26168, 32056,-29996, 23701
                              5C95  039E
7D38 4698 4495 F18E 6288 6630 5E90  03A0   110        .WORD   24208, 26160, 25224, -3698, 17557, 18072, 32056,-29991
                              8AD9  03AE
8E6D 6182 89D1 7D00 0104 4690 89D0  03B0   111        .WORD  -30256, 18064,   260, 32000,-30255, 24962,-29075,  9752
                              2618  03BE
5691 0502 30F0 896A 8BE4 60F8 0105  03C0   112        .WORD     261, 24824,-29724,-30358, 12528,  1282, 22161, 26753
                              6881  03CE
A688 3D50 3D40 3D00 3D10 3DF0 1D80  03D0   113        .WORD    7552, 15856, 15632, 15616, 15680, 15696,-22904,   268
                              010C  03DE
A698 89FB 1D01 7101 012E 0542 7DB8  03E0   114        .WORD   32184,  1346,   302, 28929,  7425,-30213,-22888,   366
                              016E  03EE
669A 2784 9D11 21A0 26F6 6299 61BD  03F0   115        .WORD   25016, 25241,  9974,  8608,-25327, 10116, 26266,   271
                              010F  03FE
5990 972D 615A 6881 5691 0800 76B4  0400   116        .WORD   30388,  2048, 22161, 26753, 24922,-26835, 22928,-27087
                              9631  040E
618A 950C 21A0 9612 798A 8EFB 6390  0410   117        .WORD   25488,-28933, 31114,-27118,  8608,-27380, 24970, 25488
                              6390  041E
819A 0117 9517 9417 5990 9127 9E25  0420   118        .WORD  -25051,-28377, 22928,-27625,-27369,   279,-32358,   281
                              0119  042E
61C4 0180 941B A180 8F3E 21A0 89C7  0430   119        .WORD  -30265,  8608,-28866,-24192,-27621,   384, 25028, 25752
                              6498  043E
9939 2418 9423 21A0 2408 9420 21A0  0440   120        .WORD    8608,-27616,  9224,  8608,-27613,  9240,-26311, 16784
                              4190  044E
0101 469B 9925 819A 012C 9D25 9C25  0450   121        .WORD  -25563,-25307,   300,-32358,-26331, 18075,   257, 26059
                              65CB  045E
21A0 2180 9533 21A0 8EFB 618A 89FB  0460   122        .WORD  -30213, 24970,-28933,  8608,-27341,  8576,  8608,-27338
                              9536  046E
943D A180 4698 89C7 013C 89FB 2180  0470   123        .WORD    8576,-30213,   316,-30265, 18072,-24192,-27587,-24176
                              A190  047E
9750 6188 6881 8129 0554 F188 8C35  0480   124        .WORD  -29643, -3704,  1364,-32471, 26753, 24968,-26800, 24969
                              6189  048E
667E 669F 014E 669E 0106 9550 9450  0490   125        .WORD  -27568,-27312,   262, 26270,   334, 26271, 26238,-32101
                              829B  049E
1D61 9659 6182 9940 015B 7101 0109  04A0   126        .WORD     265, 28929,   347,-26304, 24962,-27047,  7521,  1286
                              0506  04AE
7090 653E 669E 6101 010B 1D84 9162  04B0   127        .WORD  -28318,  7556,   267, 24833, 26270, 25918, 28816, 15616
                              3D00  04BE
21A0 0800 753A 663A 469A 7990 9197  04C0   128        .WORD  -28265, 31120, 18074, 26170, 30010,  2048,  8608,-27546
                              9466  04CE
2408 946C 21A0 6498 6390 610A 01F9  04D0   129        .WORD     505, 24842, 25488, 25752,  8608,-27540,  9224,  8608
                              21A0  04DE
3D00 9381 2180 9572 21A0 2418 946F  04E0   130        .WORD  -27537,  9240,  8608,-27278,  8576,-27775, 15616,  9488
                              2510  04EE
30F0 66C2 0990 8129 937C 60FA 0119  04F0   131        .WORD     281, 24826,-27780,-32471,  2448, 26306, 12528,  9648
                              25B0  04FE
4190 7001 0103 8933 2217 2206 8129  0500   132        .WORD  -32471,  8710,  8727,-30413,   259, 28673, 16784,-27495
                              9499  050E
6570 4690 928F 7D70 4690 7101 010B  0510   133        .WORD     267, 28929, 18064, 32112,-28017, 18064, 25968,   263
                              0107  051E
7D90 8C34 2100 753A 469A 1DB3 7101  0520   134        .WORD   28929,  7603, 18074, 30010,  8448,-29644, 32144,  9488
                              2510  052E
21A0 6690 0111 919D 0110 969C 8129  0530   135        .WORD  -32471,-26980,   272,-28259,   273, 26256,  8608,-28866
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                                        8F3E  053E
21A0 2408 66C2 0180 7101 010B           6488  0540   136        .WORD    25736,   267, 28929,   384, 26306,  9224,  8608,-27482
                                        94A6  054E
4498 94AC 21A0 5C98 94A9 21A0           2418  0550   137        .WORD     9240,  8608,-27479, 23704,  8608,-27476, 17560, 28804
                                        7084  055E
753A 663A 469A 1D91 8129 25B0           0800  0560   138        .WORD     2048,  9648,-32471,  7569, 18074, 26170, 30010,  9739
                                        260B  056E
60FA 6101 0129 65BB 010C 665B           665B  0570   139        .WORD    26203, 26203,   268, 26043,   297, 24833, 24826,-27707
                                        93C5  057E
7101 0107 8129 93CC 60FA 6101           010E  0580   140        .WORD      270, 24833, 24826,-27700,-32471,   263, 28929,  7641
                                        1DD9  058E
3DF0 7101 0109 81B3 669F 01C4           051A  0590   141        .WORD     1306,   452, 26271,-32333,   265, 28929, 15856,  9752
                                        2618  059E
0102 8729 6188 4699 7081 65B8           0107  05A0   142        .WORD      263, 26040, 28801, 18073, 24968,-30935,   258, 26057
                                        65C9  05AE
3D00 0800 753A 663A 469A 7990           8129  05B0   143        .WORD   -32471, 31120, 18074, 26170, 30010,  2048, 15616,  9488
                                        2510  05BE
0140 8F3E 21A0 8129 93E4 60FA           0127  05C0   144        .WORD      295, 24826,-27676,-32471,  8608,-28866,   320, 25028
                                        61C4  05CE
21A0 5C98 4699 6881 7001 0102           6498  05D0   145        .WORD    25752,   258, 28673, 26753, 18073, 23704,  8608,-27410
                                        94EE  05DE
101C 669F 0102 8F3E 21A0 6498           4798  05E0   146        .WORD    18328, 25752,  8608,-28866,   258, 26271,  4124,  2048
                                        0800  05EE
21A0 6498 6670 92FD 617B 5E90           5E9B  05F0   147        .WORD    24219, 24208, 24955,-27907, 26224, 25752,  8608,-27394
                                        94FE  05FE
9908 0101 91F8 9C05 9B07 677F           6488  0600   148        .WORD    25736, 26495,-25849,-25595,-28168,   257,-26360,   261
                                        0105  060E
613F 9A09 667C 5C98 9C09 21A0           669C  0610   149        .WORD    26268,  8608,-25591, 23704, 26236,-26103, 24895,-27144
                                        95F8  061E
61B0 010F 8F85 2790 8620 6390           9144  0620   150        .WORD   -28348, 25488,-31200, 10128,-28795,   271, 25008, 30356
                                        7694  062E
6390 6390 6180 6881 8BFB 5691           0800  0630   151        .WORD     2048, 22161,-29701, 26753, 24960, 25488, 25488, 25488
                                        6390  063E
0104 2482 893C 66B6 0107 6696           6390  0640   152        .WORD    25488, 26262,   263, 26294,-30404,  9346,   260, 28673
                                        7001  064E
5E98 5C97 9A7F 7D38 6638 4698           4496  0650   153        .WORD    17558, 18072, 26168, 32056,-25985, 23703, 24216,   320
                                        0140  065E
2483 9D34 21A0 6299 61C8 61B9           A699  0660   154        .WORD   -22887, 25017, 25032, 25241,  8608,-25292,  9347,   273
                                        0111  066E
9A88 7D78 4698 9A88 7D78 4698           6298  0670   155        .WORD    25240, 18072, 32120,-25976, 18072, 32120,-25976,   346
                                        015A  067E
9C45 A180 5E9B 5E9A 5E99 5E98           669F  0680   156        .WORD    26271, 24216, 24217, 24218, 24219,-24192,-25531,-22628
                                        A79C  068E
6130 4690 5C97 4495 5C96 4494           8C41  0690   157        .WORD   -29631, 17556, 23702, 17557, 23703, 18064, 24880, 25240
                                        6298  069E
A190 9C54 A180 6299 61C0 61BC           0140  06A0   158        .WORD      320, 25020, 25024, 25241,-24192,-25516,-24176,-29632
                                        8C40  06AE
9A8D 9F5F 615E 6493 61CE 261E           0180  06B0   159        .WORD      384,  9758, 25038, 25747, 24926,-24737,-25971,   302
                                        012E  06BE
615E 6298 0111 6492 6188 0501           7101  06C0   160        .WORD    28929,  1281, 24968, 25746,   273, 25240, 24926,-24680
                                        9F98  06CE
610E 6101 0110 8F3F 61E9 67BE           0107  06D0   161        .WORD      263, 26558, 25065,-28865,   272, 24833, 24846, 24846
                                        610E  06DE
7D88 7101 0104 469C 5E99 5E98           710E  06E0   162        .WORD    28942, 24216, 24217, 18076,   260, 28929, 32136, 32137
                                        7D89  06EE
E98F 9C7C A180 658E 7D8B 7D8A           7D8C  06F0   163        .WORD    32140, 32138, 32139, 25998,-24192,-25476, -5745, 17559
                                        4497  06FE
```

```
7D08 0104 4698 992E 9A84 7D38 4698  0700   164          .WORD   18072, 32056,-25980,-26322, 18072,   260, 32008,-26321
                              992F  070E
4190 7081 89FB 8C41 A190 9C88 A180  0710   165          .WORD  -24192,-25464,-24176,-29631,-30213, 28801, 16784,-29374
                              8D42  071E
61C8 0180 6493 669E 0180 669F 0159  0720   166          .WORD     345, 26271,   384, 26270, 25747,   384, 25032,-26269
                              9963  072E
7101 0100 893D 9F9D 4190 7101 0103  0730   167          .WORD     259, 28929, 16784,-24675,-30403,   256, 28929, 18072
                              4698  073E
2614 896E 9EA6 6182 89FB 65C8 0120  0740   168          .WORD     288, 26056,-30213, 24962,-24922,-30354,  9748,   263
                              0107  074E
65CD 469D 0148 6881 8B6C 5691 76B4  0750   169          .WORD   30388, 22161,-29844, 26753,   328, 18077, 26061,-30395
                              8945  075E
21A0 6489 9EB3 21A0 26B0 6499 0180  0760   170          .WORD     384, 25753,  9904,  8608,-24909, 25737,  8608, 25488
                              6390  076E
9AB3 6670 8983 9BBD 60F0 2190 9EB6  0770   171          .WORD  -24906,  8592, 24816,-25667,-30333, 26224,-25933,  8608
                              21A0  077E
9BC8 60F0 2180 9DC2 21A0 6488 9CBF  0780   172          .WORD  -25409, 25736,  8608,-25150,  8576, 24816,-25656,-30332
                              8984  078E
812B 6297 4190 6296 0105 9ABF 6670  0790   173          .WORD   26224,-25921,   261, 25238, 16784, 25239,-32469,  9872
                              2690  079E
0100 66B0 01F0 66D0 0105 6580 102A  07A0   174          .WORD    4138, 25984,   261, 26320,   496, 26288,   256, 24816
                              60F0  07AE
0000 0000 0000 811A 0105 4690 831B  07B0   175          .WORD  -31973, 18064,   261,-32486,     0,     0,     0,     0
                              0000  07BE
0000 0000 0000 0000 0000 0000 0000  07C0   176          .WORD       0,     0,     0,     0,     0,     0,     0,     0
                              0000  07CE
0000 0000 0000 0000 0000 0000 0000  07D0   177          .WORD       0,     0,     0,     0,     0,     0,     0,     0
                              0000  07DE
0000 0000 0000 0000 0000 0000 0000  07E0   178          .WORD       0,     0,     0,     0,     0,     0,     0,     0
                              0000  07EE
0000 0000 0000 0000 0000 0000 0000  07F0   179          .WORD       0,     0,     0,     0,     0,     0,     0,     1
                              0001  07FE
                                    0800   180          .END
```

```
LPA$$MRMCODE     00000000 RG    01
```

```
                                        +----------------+
                                        ! Psect synopsis !
                                        +----------------+

PSECT name                      Allocation          PSECT No.  Attributes
----------                      ----------          ---------  ----------
.  ABS  .                       00000000  (    0.)  00 (  0.)  NOPIC   USR   CON   ABS   LCL NOSHR NOEXE NORD  NOWRT NOVEC BYTE
_LPA$CODE                       00000800  ( 2048.)  01 (  1.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD  NOWRT NOVEC WORD

                                      +-------------------------+
                                      ! Performance indicators !
                                      +-------------------------+

Phase                     Page faults    CPU Time       Elapsed Time
-----                     -----------    --------       ------------
Initialization                     29    00:00:00.06    00:00:01.18
Command processing                101    00:00:00.48    00:00:01.59
Pass 1                             76    00:00:01.59    00:00:03.53
Symbol table sort                   0    00:00:00.00    00:00:00.00
Pass 2                             70    00:00:00.67    00:00:01.37
Symbol table output                 2    00:00:00.01    00:00:00.01
Psect synopsis output               1    00:00:00.01    00:00:00.01
Cross-reference output              0    00:00:00.00    00:00:00.00
Assembler run totals              282    00:00:02.82    00:00:07.70

The working set limit was 900 pages.
7354 bytes (15 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 1 non-local and 0 local symbols.
180 source lines were read in Pass 1, producing 15 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

                                        +---------------------------+
                                        ! Macro library statistics !
                                        +---------------------------+

Macro library name                      Macros defined
------------------                      --------------
_$255$DUA28:[SYSLIB]STARLET.MLB;2                    0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:LAMRMCODE/OBJ=OBJ$:LAMRMCODE MSRC$:LAMRMCODE/UPDATE=(ENH$:LAMRMCODE)
```

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MELDR

MDL32

LALOAD
MAP

MDL32
MAP

XFLOADER
MAP

LALOADER
LIS

XFLOADER
LIS

LADAMCODE
LIS

LALOAD
LIS

MARBLI

MARBLI
MAP

LALOADER
MAP

LAMRMCODE
LIS

LAADMCODE
LIS

MARBLI
LIS

LADMOT
LIS